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10/056,261	01/25/2002	Mikael Johansson	8194-581	8071

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EXAMINER

PHAN, HUY Q

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 08/04/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,261

Applicant(s)

JOHANSSON ET AL.

Examiner

Huy Q Phan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,6-14,16,17, 21, 22, 24, 25, 29 and 30 is/are rejected.
7) ☒ Claim(s) 3-5,15,18-20,23,26-28 and 31 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 6-8, 16, 17, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Sood (US-5,293,645).

Regarding claim 1, Sood discloses in figure 6, a method of determining a location of a mobile terminal (400), comprising:

receiving, at the mobile terminal, respective data packets (inherently to col. 2, lines 14-28 and see fig. 6, feature 405) from respective ones of at least three transmitters whose respective locations are known (col. 2, line 59-col. 3, line 4), the respective locations of the at least three transmitters being different from each other (col. 3, lines 29-33);

determining respective delays for the respective data packets to travel from the respective ones of the at least three transmitters to the mobile terminal (col. 3, lines 34-37); and

determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

Regarding claim 2, Sood discloses a method as recited in the rejection of claim

1, wherein determining the respective delays for the respective data packets to travel from the respective ones of the at least three transmitters to the mobile terminal comprises determining respective distances between the mobile terminal and the respective ones of the at least three transmitters based on the respective delays (fig. 6 and col. 4, lines 58-66); and

wherein determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises determining the location of the mobile terminal based on the respective distances between the mobile terminal and the respective ones of the at least three transmitters (fig. 6; col. 4, lines 58-66 and col. 6, line 59-col. 7, lines 28).

Regarding claim 6, Sood discloses a method as recited in the rejection of claim 1, wherein determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39) comprises:

transmitting the respective delays to a data processing system, the data processing system being programmed with the respective locations of the at least three transmitters (col. 7, lines 8-11); and

determining, at the data processing system, the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 2, line 50-col. 3, line 39).

Regarding claim 7, Sood discloses a method as recited in the rejection of claim 1, wherein determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises:

receiving, at the mobile terminal, the respective locations of the at least three transmitters from the at least three transmitters (col. 3, lines 23-33); and

determining, at the mobile terminal, the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

Regarding claim 8, Sood discloses a method as recited in the rejection of claim 1, wherein the respective ones of the at least three transmitters comprise respective ones of a plurality of mobile data base stations, and wherein the received signals are cellular digital packet data (CDPD) signals (inherently to data packet signal being transmitted in digital radio system; see fig. 6 and col. 2, lines 14-27).

Regarding claim 16, Sood discloses in figure 6, a system for determining a location of a mobile terminal (400), comprising:

means for receiving, at the mobile terminal, respective data packets (inherently to col. 2, lines 14-28 and see fig. 6, feature 405) from respective ones of at least three transmitters whose respective locations are known (col. 2, line 59-col. 3, line 4), the respective locations of the at least three transmitters being different from each other (col. 3, lines 29-33);

means for determining respective delays for the respective data packets to travel from the respective ones of the at least three transmitters to the mobile terminal (col. 3, lines 34-37); and

means for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

Regarding claim 17, Sood discloses a system as recited in the rejection of claim 16, wherein the means for determining the respective delays for the respective data packets to travel from the respective ones of the at least three transmitters to the mobile terminal comprises means for determining respective distances between the mobile terminal and the respective ones of the at least three transmitters based on the respective delays (fig. 6 and col. 4, lines 58-66); and

wherein the means for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises means for determining the location of the mobile terminal based on the respective distances between the mobile terminal and the respective ones of the at least three transmitters (fig. 6; col. 4, lines 58-66 and col. 6, line 59-col. 7, lines 28).

Regarding claim 24, Sood discloses a computer program product (inherently to programmed microprocessors; see col. 7, lines 8-11) for determining a location of a mobile terminal (fig. 6, box 400), comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code (inherently to programmed microprocessors; see col. 7, lines 8-11) comprising:

computer readable program code for receiving, at the mobile terminal, respective data packets from respective ones of at least three transmitters whose respective locations are known, the respective locations of the at least three transmitters being different from each other (col. 3, lines 29-33);

computer readable program code for determining respective delays for the respective data packets to travel from the respective ones of the at least three transmitters to the mobile terminal (col. 3, lines 34-37); and

computer readable program code for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

Regarding claim 25, Sood discloses a computer program product as recited in the rejection of claim 24, wherein the computer readable program code for determining the respective delays for the respective data packets to travel from the respective ones of the at least three transmitters to the mobile terminal comprises computer readable program code for determining respective distances between the mobile terminal and the respective ones of the at least three transmitters based on the respective delays (fig. 6 and col. 4, lines 58-66); and

wherein the computer readable program code for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises computer readable program code for determining the location of the mobile terminal based on the respective distances between the mobile terminal and the respective ones of the at least three transmitters (fig. 6; col. 4, lines 58-66 and col. 6, line 59-col. 7, lines 28).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sood in view of Sheffer (US-4,891,650).

Regarding claim 9, Sood discloses a method as recited in the rejection of claim 8. But, Sood fails to expressly teach wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein the one of the at least three cells is adjacent to other ones of the at least three cells.

However in analogous art, Sheffer discloses a method wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells (fig. 4A and features 14-1 to 14-4), wherein the mobile terminal is located in one of

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the at least three cells (fig. 4A, feature 14-1), and wherein the one of the at least three cells is adjacent to other ones of the at least three cells (fig. 4A and features 14-1 to 14-4).

Since, Sood and Sheffer are related to method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Sood by specifically having wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein the one of the at least three cells is adjacent to other ones of the at least three cells as taught by Sheffer for purpose of minimizing the interference and reducing the power consumption by transmitting the signals between the mobile terminal and the base stations in order to increase advantageously the quality and simplicity of the wireless communication system.

Regarding claim 10, Sood discloses a method as recited in the rejection of claim 8. But, Sood does not particularly show wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein receiving, at the mobile terminal, the respective data packets from the respective ones of the at least three transmitters whose respective locations are known comprises: scanning respective CDPD channels that are associated with respective other ones of the at least three cells, which are adjacent to the one of the at least three cells.

However, Sheffer discloses a method wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells (fig. 4A and features 14-1 to 14-4), wherein the mobile terminal is located in one of the at least three cells (fig. 4A, feature 14-1), and wherein receiving, at the mobile terminal, the respective signals from the respective ones of the at least three transmitters whose respective locations and respective transmit power levels are known (col. 10, lines 28-65 and col. 11, lines 16-67) comprises: scanning respective CDPD channels that are associated with respective other ones of the at least three cells (col. 6, line 16-col. 7, line 58), which are adjacent to the one of the at least three cells (fig. 4A and features 14-1 to 14-4).

Since, Sood and Sheffer are related to method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Sood by specifically having wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein receiving, at the mobile terminal, the respective data packets from the respective ones of the at least three transmitters whose respective locations are known comprises: scanning respective CDPD channels that are associated with respective other ones of the at least three cells, which are adjacent to the one of the at least three cells as taught by Sheffer for purpose of minimizing the interference and reducing the power consumption by transmitting the signals between the mobile terminal and the base stations in order to increase advantageously the quality and simplicity of the wireless communication system.

Regarding claim 11, Sood discloses a method as recited in the rejection of claim 8. But, Sood fails to expressly teach wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein other ones of the at least three cells comprise at least one cell that is adjacent to the one of the at least three cells and at least one cell that is not adjacent to the one of the at least three cells.

However, Sheffer discloses a method wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells (fig. 4A and features 14-1 to 14-8), wherein the mobile terminal is located in one of the at least three cells (fig. 4A, feature 14-1), and wherein other ones of the at least three cells (fig. 4A and features 14-1 to 14-8) comprise at least one cell that is adjacent to the one of the at least three cells (fig. 4A and features 14-1 to 14-6) and at least one cell that is not adjacent to the one of the at least three cells (fig. 3, features 14-1, 14-3, 14-6 and col. 10, lines 28-65).

Since, Sood and Sheffer are related to method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Sood by specifically having wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein other ones of the at least three cells comprise at least one cell

that is adjacent to the one of the at least three cells and at least one cell that is not adjacent to the one of the at least three cells as taught by Sheffer for purpose of minimizing the interference and reducing the power consumption by transmitting the signals between the mobile terminal and the base stations in order to increase advantageously the quality and simplicity of the wireless communication system.

Regarding claim 12, Sood discloses a method as recited in the rejection of claim 8. But, Sood does not explicitly disclose wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein receiving, at the mobile terminal, the respective data packets from the respective ones of the at least three transmitters whose respective locations are known comprises: scanning respective CDPD channels that are associated with respective other ones of the at least three cells, which comprise at least one cell that is adjacent to the one of the at least three cells and at least one cell that is not adjacent to the one of the at least three cells.

However, Sheffer discloses a method as recited in the rejection of claim 4, wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells (fig. 4A and features 14-1 to 14-4), wherein the mobile terminal is located in one of the at least three cells (fig. 4A, feature 14-1), and wherein receiving, at the mobile terminal, the respective signals from the respective ones of the at least three transmitters whose respective locations and respective transmit power levels are known (col. 10, lines 28-65 and col. 11, lines 16-67) comprises: scanning

respective CDPD channels that are associated with respective other ones of the at least three cells (col. 6, line 16-col. 7, line 58), which comprise at least one cell that is adjacent to the one of the at least three cells (fig. 4A and features 14-1 to 14-6) and at least one cell that is not adjacent to the one of the at least three cells (fig. 3, features 14-1, 14-3, 14-6 and col. 10, lines 28-65).

Since, Sood and Sheffer are related to method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Sood by specifically having wherein respective ones of the at least three transmitters are associated with respective ones of at least three cells, wherein the mobile terminal is located in one of the at least three cells, and wherein receiving, at the mobile terminal, the respective data packets from the respective ones of the at least three transmitters whose respective locations are known comprises: scanning respective CDPD channels that are associated with respective other ones of the at least three cells, which comprise at least one cell that is adjacent to the one of the at least three cells and at least one cell that is not adjacent to the one of the at least three cells as taught by Sheffer for purpose of minimizing the interference and reducing the power consumption by transmitting the signals between the mobile terminal and the base stations in order to increase advantageously the quality and simplicity of the wireless communication system.

5. Claims 13, 14, 21, 22, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sood in view of Fattouche et al. (US-6,266,014).

Regarding claim 13, Sood discloses a method of determining a location of a mobile terminal, comprising:

transmitting, from the mobile terminal, respective data packets (inherently to col. 2, lines 14-28 and see fig. 6, feature 405) to respective ones of the at least three transmitters whose respective locations are known (col. 2, line 59-col. 3, line 4), the respective locations of the at least three transmitters being different from each other (col. 3, lines 29-33);

transmitting, from the respective ones of the at least three transmitters, respective response data packets to the mobile terminal responsive to receiving the respective data packets at the respective ones of the at least three transmitters (col. 3, lines 5-12);

receiving, at the mobile terminal, respective response data packets from the respective ones of the at least three transmitters (col. 3, lines 13-16);

determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

But, Sood fails to expressly teach determining respective delays for the respective data packets to travel from the mobile terminal to the respective ones of the at least three transmitters and for the respective response data packets to travel from the respective ones of the at least three transmitters to the mobile terminal.

However in analogous art, Fattouche et al. teach determining the time of transmission with respect to the round-trip-delay wherein the mobile terminal transmits a signal to the transmitter to the time it receives the response of the transmitter to the

mobile terminal transmission (col. 21, lines 59-63). Since, Sood and Fattouche et al. are related a method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Sood by specifically determining the time of transmission with respect to the round trip delay wherein the mobile terminal transmits a signal to the transmitter to the time it receives the response of the transmitter to the mobile terminal transmission as taught by Fattouche et al. for purpose of offering the mobile terminal of capability in determination of its location by adapting the round-trip-delay technique.

Regarding claim 14, Sood and Fattouche et al. disclose a method as recited in the rejection of claim 13. Sood further discloses wherein determining the respective delays for the respective data packets to travel from the mobile terminal to the respective ones of the at least three transmitters and for the respective response data packets to travel from the respective ones of the at least three transmitters to the mobile terminal comprises determining respective distances between the mobile terminal and the respective ones of the at least three transmitters based on the respective delays (fig. 6 and col. 4, lines 58-66); and

wherein determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises determining the location of the mobile terminal based on the respective distances between the mobile terminal and the respective ones of the at least three transmitters

(fig. 6; col. 4, lines 58-66 and col. 6, line 59-col. 7, lines 28).

Regarding claim 21, Sood discloses a system for determining a location of a mobile terminal, comprising:

means for transmitting, from the mobile terminal, respective data packets (inherently to col. 2, lines 14-28 and see fig. 6, feature 405) to respective ones of the at least three transmitters whose respective locations are known (col. 2, line 59-col. 3, line 4), the respective locations of the at least three transmitters being different from each other (col. 3, lines 29-33);

means for transmitting, from the respective ones of the at least three transmitters, respective response data packets to the mobile terminal responsive to receiving the respective data packets at the respective ones of the at least three transmitters (col. 3, lines 5-12);

means for receiving, at the mobile terminal, respective response data packets from the respective ones of the at least three transmitters (col. 3, lines 13-16);

means for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

But, Sood does not particularly show means for determining respective delays for the respective data packets to travel from the mobile terminal to the respective ones of the at least three transmitters and for the respective response data packets to travel from the respective ones of the at least three transmitters to the mobile terminal.

However in analogous art, Fattouche et al. teach means for determining the time of transmission with respect to the round-trip-delay wherein the mobile terminal transmits a signal to the transmitter to the time it receives the response of the transmitter to the mobile terminal transmission (col. 21, lines 59-63). Since, Sood and Fattouche et al. are related a method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Sood by specifically having means for determining the time of transmission with respect to the round-trip-delay wherein the mobile terminal transmits a signal to the transmitter to the time it receives the response of the transmitter to the mobile terminal transmission as taught by Fattouche et al. for purpose of offering the mobile terminal of capability in determination of its location by adapting the round-trip-delay technique.

Regarding claim 22, Sood and Fattouche et al. disclose a system as recited in the rejection of claim 21. Sood further discloses wherein the means for determining the respective delays for the respective data packets to travel from the mobile terminal to the respective ones of the at least three transmitters and for the respective response data packets to travel from the respective ones of the at least three transmitters to the mobile terminal comprises means for determining respective distances between the mobile terminal and the respective ones of the at least three transmitters based on the respective delays (fig. 6 and col. 4, lines 58-66); and

wherein the means for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises means for determining the location of the mobile terminal based on the respective distances between the mobile terminal and the respective ones of the at least three transmitters (fig. 6; col. 4, lines 58-66 and col. 6, line 59-col. 7, lines 28).

Regarding claim 29, Sood discloses a computer program product (inherently to programmed microprocessors; see col. 7, lines 8-11) for determining a location of a mobile terminal (fig. 6, box 400), comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code (inherently to programmed microprocessors; see col. 7, lines 8-11) comprising: computer readable program code for transmitting, from the mobile terminal, respective data packets (fig. 6) to respective ones of the at least three transmitters whose respective locations are known (col. 2, line 59-col. 3, line 4), the respective locations of the at least three transmitters being different from each other (col. 3, lines 29-33);

computer readable program code for transmitting, from the respective ones of the at least three transmitters, respective response data packets to the mobile terminal responsive to receiving the respective data packets at the respective ones of the at least three transmitters (col. 3, lines 5-12);

computer readable program code for receiving, at the mobile terminal, respective response data packets from the respective ones of the at least three transmitters (col. 3, lines 13-16);

computer readable program code for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters (col. 3, lines 5-39).

But, Sood fails to expressly teach computer readable program code for determining respective delays for the respective data packets to travel from the mobile terminal to the respective ones of the at least three transmitters and for the respective response data packets to travel from the respective ones of the at least three transmitters to the mobile terminal.

However, Fattouche et al. teach computer readable program code for (col. 39, lines 1-65) determining the time of transmission with respect to the round-trip-delay wherein the mobile terminal transmits a signal to the transmitter to the time it receives the response of the transmitter to the mobile terminal transmission (col. 21, lines 59-63). Since, Sood and Fattouche et al. are related a method for determination of mobile terminal location; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Sood by specifically having computer readable program code for determining the time of transmission with respect to the round trip delay wherein the mobile terminal transmits a signal to the transmitter to the time it receives the response of the transmitter to the mobile terminal transmission as taught by Fattouche et al. for purpose of offering the mobile terminal of

capability in determination of its location by adapting the round-trip-delay technique.

Regarding claim 30, Sood discloses a computer program product as recited in the rejection of claim 29. Sood further discloses wherein the computer readable program code for determining the respective delays for the respective data packets to travel from the mobile terminal to the respective ones of the at least three transmitters and for the respective response data packets to travel from the respective ones of the at least three transmitters to the mobile terminal comprises computer readable program code for determining respective distances between the mobile terminal and the respective ones of the at least three transmitters based on the respective delays (fig. 6 and col. 4, lines 58-66); and

wherein the computer readable program code for determining the location of the mobile terminal based on the respective delays and the respective locations of the at least three transmitters comprises computer readable program code for determining the location of the mobile terminal based on the respective distances between the mobile terminal and the respective ones of the at least three transmitters (fig. 6; col. 4, lines 58-66 and col. 6, line 59-col. 7, lines 28).

Allowable Subject Matter

6. Claims 3-5, 15, 18-20, 23, 26-28 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Naghian (US-2002/0086682) discloses a method for positioning a mobile station.
- b) Fattouche et al. (US-5,890,068) disclose a wireless location system.
- c) Ali (US-6,539,229) discloses a mobile location method.
- d) Chen et al. (US-6,522,882) disclose a method for locating a mobile station.
- e) Maloney et al. (US-6,546,256) disclose location-related measurement.
- f) Wortham (US-6,748,226) discloses a method for locating a mobile unit.
- g) Chen (US-2002/0160787) discloses a method for locating a mobile station.
- h) Solima (US-2002/0065089) discloses a method using location information.
- i) Kasapidis (US-2002/0019239) disclose a cellular communication network.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy Q Phan whose telephone number is 703-305-9007. The examiner can normally be reached on 8AM-5PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Urban F Edward can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phan, Huy Q

AU: 2685

Date : Jul. 23, 2004


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600